

What We Know

Water Quality

I. The Problem

We have serious problems with water quality based upon empirical data relating to the conditions of surface waters (ponds, rivers, estuaries, and Nantucket Sound) in/around Mashpee.

There is substantial established and settled science that details our declining water quality. Science has shown that nutrient loading is the problem – approximately 80-85% of nutrient loading is due to Title V Septic systems.

II. The Result

- A. **Our environment**, and the life it supports, are being destroyed. It will take years to restore our waters and we need to begin now.
- B. **Our economy** depends on tourism, which relies upon clean water. Tourists come to Mashpee to recreate in clean water. Tourists and visitors support Mashpee businesses (shopping, dining out, etc.). Landscapers maintain seasonal homes, so they also depend on a robust tourism industry.

The Cape Cod Commission notes in 2022:

- Cape Cod tourism created **\$1.4 billion** in spending by domestic travelers.
- Tourism supported **10,100 travel-related jobs, \$378 million in wages** and generates more than **\$181.1 million** in state and local tax receipts.

Source:

[https://www.capecodchamber.org/members/membership/statistics/#:~:text=Travel%20%26%20Tourism%20Industry%20Statistics,in%20wages%20\(%2B8%25%20vs.](https://www.capecodchamber.org/members/membership/statistics/#:~:text=Travel%20%26%20Tourism%20Industry%20Statistics,in%20wages%20(%2B8%25%20vs.)

III. State Mandate to Clean our Waters

- Massachusetts Department of Environmental Protection regulations require that towns with nitrogen sensitive areas (all of Mashpee) file their intent to obtain a watershed permit by July 2025 or they must replace all Title V systems in the town with new innovative alternative systems by 2030.

What this means to the Town of Mashpee

- Mashpee intends to submit a watershed plan showing how the Town will remove 75% of nitrogen within 20 years.
- If it does not submit a watershed plan within 7 years, every home in Mashpee with a Title V system will be required to install an Innovative Alternative (IA) system at a substantial cost.
- NOTE: Currently IA systems are not as effective as public sewer/wastewater treatment systems in removing nitrogen and few IA systems remove phosphorous.

Sources

Easy to access resource explaining watershed requirements: <https://www.capecodcommission.org/resource-library/file/?url=/dept/commission/team/Website/Resources/208/MassDEP%20Title%205%20Summary%20-%20Dec%202022.pdf>

Q&R about Watershed Permits and Nitrogen Sensitive Areas: <https://www.mass.gov/doc/310-cmr-15000-314-cmr-2100-q-a/download>

Regulations: <https://www.mass.gov/regulations/314-CMR-2100-watershed-permit-regulations>

IV. Costs to Residents

- Important to first consider the cost of waiting —the price of materials and labor continues to increase.
- The CIWPF is actively seeking additional funds to continue with the 25% subsidy (for which this project will be eligible) AND continues to offer a 12% subsidy. That is \$9.6 million for this project.
- The State Revolving Fund (SRF) will provide 0% financing and these payments will not begin until up to 12 months of project completion. So, residents will not see an increase in property tax for the wastewater system for several years.
- As far as we know, the upper limit tax increase for the average home, \$250 per year (\$4.80 per week), was calculated without accounting for the \$9.6 million (12% of \$80 million) subsidy, so it is a conservatively high estimate.

Sources

Cape and Islands Water Protection Fund: <https://www.capecodcommission.org/our-work/cape-cod-and-islands-water-protection-fund/>

State Revolving Fund Explained: <https://www.mass.gov/doc/clean-water-and-drinking-water-state-revolving-funds-and-the-bipartisan-infrastructure-law-presentation/download> See particularly pp. 4, 11, 13, 14, 19, 29, 33 and 37.

Note: Mass Clean Water Trust: State revolving fund – 0% interest for wastewater treatment

“0% Nutrient Enrichment Reduction Loans - This loan program is for CWSRF loans that are primarily intended to remediate or prevent nutrient enrichment of a surface water body or water supply which can cause environmental degradation of the surrounding water bodies” (see slide 37)

VI. Analogous Costs of Connection Charges (Estimated cost range, 2021)

- Falmouth \$4,000 - \$6,000
- Chatham \$2,800 - \$23,828 (median cost \$8,438)

VII. Supports and Subsidies for Home Owners

The Aquifund offers 20-year loans for the total cost of the project with rates dependent on household incomes:

- 0% - less than 120% AMI (currently \$100,500)
- 2% - between 120% and 180% AMI (currently \$150,500)
- 4% - greater than 180% AMI

Massachusetts residents are entitled to a tax credit of up to 40% of the total cost (credit not to exceed \$6,000).

Sources

Aquifund: <https://www.capecod.gov/departments/health-environment/programs-services/water-and-wastewater/community-septic-management-loan-program-csmfp/>

Massachusetts Tax Credits: <https://www.mass.gov/technical-information-release/tir-97-12-personal-income-tax-credit-for-failed-cesspool-or-septic-system-title-5-expenditures>